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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/010,918

12/07/2001

David R. Cheriton

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7590

06/06/2006

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EXAMINER

SHAW, PELING ANDY

ART UNIT

PAPER NUMBER

2144

DATE MAILED: 06/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/010,918	CHERITON, DAVID R.	
	Examiner	Art Unit	
	Peling A. Shaw	2144	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-58 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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**DETAILED ACTION**

1. Amendment received on 02/27/2006 has been entered into record. Claims 9, 12, 17, 32, 35, 48 and 51 are amended. Claims 56-58 are new. Claims 1-58 are currently pending.

***Priority***

2. This application has no priority claim made. The filing date is 12/07/2001.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-58 are rejected under 35 U.S.C. 102(e) as being anticipated by Uga et al. (US 6718326 B2), hereinafter referred as Uga.

- a. Regarding claim 1, Uga disclosed a method of processing a packet comprising:  
populating a plurality of multi-feature packet processing rules in a multi-feature classification memory (column 20, line 51-60); and populating an associated content-addressable memory with a plurality of indices of said plurality of multi-feature packet processing rules in said multi-feature classification memory (column 20, line 44-50).

- b. Regarding claim 2, Uga disclosed the method of claim 1, further comprising:  
identifying a classification of said packet; and using said classification to identify said multi-feature packet processing rule (column 20, line 37-43).
- c. Regarding claim 3, Uga disclosed the method of claim 2, wherein said classification is based on a plurality of parameters of said packet (column 20, line 37-43).
- d. Regarding claim 4, Uga disclosed the method of claim 2, further comprising:  
receiving said packet; finding a match for said classification in said associated content-addressable memory; and receiving one of said indices from said associated content-addressable memory for one of said multi-feature packet processing rules in said multi-feature classification memory (column 20, line 61-column 21, line 12).
- e. Regarding claim 5, Uga disclosed the method of claim 4, further comprising: using said index to receive said multi-feature packet processing rule from said multi-feature classification memory (column 20, line 61-column 21, line 12).
- f. Regarding claim 6, Uga disclosed the method of claim 4, wherein said content-addressable memory is a multi-feature content addressable memory (column 20, line 44-50).
- g. Regarding claim 7, Uga disclosed the method of claim 4, wherein said content-addressable memory is a feature based content-addressable memory bank (column 20, line 44-50).
- h. Regarding claim 8, Uga disclosed the method of claim 7, wherein said multi-feature packet processing rules are populated in said multi-feature classification memory according to a feature hierarchy (column 3, line 19-40).

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- i. Claims 9-16 are of the same scope as claims 1-8. These are rejected for the same reasons as for claims 1-8.
- j. Claims 17-23 are of the same scope as claims 1-8. These are rejected for the same reasons as for claims 1-8.
- k. Claims 24-31 are of the same scope as claims 1-8. These are rejected for the same reasons as for claims 1-8.
- l. Claims 32-39 are of the same scope as claims 1-8. These are rejected for the same reasons as for claims 1-8.
- m. Claims 40-47 are of the same scope as claims 1-8. These are rejected for the same reasons as for claims 1-8.
- n. Claims 48-55 are of the same scope as claims 1-8. These are rejected for the same reasons as for claims 1-8.
- o. Claims 56 and 58 are of the same scope as claims 1 and 4-5. These are rejected for the same reasons for claims 1 and 4-5.
- p. Claim 57 is of the same scope as claims 1-2. It is rejected for the same reasons as for claims 1-2.

Uga disclosed all limitations of claims 1-58. Claims 1-58 are rejected under 35 U.S.C.

102(e).

***Response to Arguments***

4. Applicant's arguments filed on 02/27/2006 have been fully considered, but they are not persuasive.
  - a. In response to applicant's argument that Uga's search result storage device does not anticipate the claimed multi-feature classification memory. Examiner has reviewed applicant's original specification and claims with respect to the function of multi-feature classification memory. As cited in above rejection section and abstract of Uga, it is clear that Uga has shown (column 20, lines 51-60) the search result storage device stores actions corresponding to said combinations of grouped fields, number of searches information and search related information inputted to said content addressable memory. As applicant described multi-feature classification function is mapped as Uga's packet classification corresponding to said grouped fields, number of searches information and search related information (inputted to said content addressable memory), it is clear Uga does have applicant argued limitations.
  - b. Amended and added new claims are examined as above.

***Remarks***

5. The following pertaining arts are discovered and not used in this office action. Office reserves the right to use these arts in later actions.

- a. Mate et al. (US 20030056001 A1) Selective routing of data flows using a TCAM
- b. Woo (US 20020023089 A1) Modular packet classification
- c. Fowler et al. (US 6504819 B2) Classes of service in an MPOA network
- d. Ginossar (US 6477143 B1) Method and apparatus for packet network congestion avoidance and control
- e. Gai et al. (US 6167445 A) Method and apparatus for defining and implementing high-level quality of service policies in computer networks
- f. Herbert (US 5325445 A) Feature classification using supervised statistical pattern recognition
- g. Schultz et al. (1994 IEEE) CAM-Based Single-Chip Shared Buffer ATM Switch

*Conclusion*

6. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Refer to the enclosed PTO-892 for details.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peling A. Shaw whose telephone number is (571) 272-7968. The examiner can normally be reached on M-F 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William C. Vaughn can be reached on (571) 272-3922. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished



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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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W.C. Vaughn, Jr.  
WILLIAM C. VAUGHN, JR.  
PRIMARY EXAMINER